[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0700; Directorate Identifier 2013-NM-102-AD]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain Bombardier, Inc. Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes. This proposed AD was prompted by reports of fractured rudder pedal tubes installed on the pilot-side rudder bar assembly. This proposed AD would require repetitive inspections for cracking and damage of both pilot-side rudder pedal tubes, and replacement of affected pilot-side rudder bar assemblies if necessary. We are proposing this AD to detect and correct cracking of both pilot-side rudder pedal tubes, which could result in loss of pilot rudder pedal input causing reduced yaw controllability or a runway excursion.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to http://www.regulations.gov. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; email thd.crj@aero.bombardier.com; Internet http://www.bombardier.com. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Ricardo Garcia, Aerospace Engineer, Airframe and Propulsion Branch, ANE-171, FAA, New York Aircraft Certification

Office, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone (516) 228-7331; fax (516) 794-5531.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2013-0700; Directorate Identifier 2013-NM-102-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to http://www.regulations.gov, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2013-12, dated May 14, 2013 (referred to after this as the Mandatory Continuing Airworthiness Information, or "the MCAI"), to correct an unsafe condition for the specified products. The MCAI states:

> There have been two in-service reports of fracture of rudder pedal tubes installed on the pilot-side rudder bar assembly.

> Laboratory examination of the fractured rudder pedal tubes found that in both cases, the fatigue cracks initiated at the aft taper pin holes where the connecting rod fitting is attached. Fatigue testing of the rudder pedal tubes confirmed that the fatigue cracking is due to loads induced during parking brake application. Therefore, only the rudder pedal tubes on the pilot's side are vulnerable to fatigue cracking as the parking brake is primarily applied by the pilot.
>
> Loss of pilot rudder pedal input during flight would result in reduced yaw controllability of the aeroplane. Loss of pilot rudder pedal input during takeoff or landing may lead to a runway excursion.
>
> This [Canadian] AD mandates initial and repetitive [detailed or eddy current] inspections [for cracking and damage and replacement if necessary] of the pilot-side rudder * * * [bar assembly], until the terminating action is accomplished.

Required actions also include repairing damage. The terminating action is replacement of both pilot-side rudder bar assemblies. You may obtain further information by examining the MCAI in the AD docket.

Relevant Service Information

Bombardier has issued Service Bulletin 601R-27-162, including Appendix A, dated April 5, 2013. The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

FAA's Determination and Requirements of This Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because

we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

Clarification of Inspection Terminology

In this proposed AD, the "detailed visual inspection" specified in Bombardier Service Bulletin 601R-27-162, including Appendix A, dated April 5, 2013, is referred to as a "detailed inspection." We have included the definition for a detailed inspection in paragraph (h) of the proposed AD.

Costs of Compliance

We estimate that this proposed AD affects 529 airplanes of U.S. registry. We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection	3 work-hours X $85 per hour = $255 per inspection cycle	$0	$255 per inspection cycle	$134,895 per inspection cycle

We estimate the following costs to do any necessary replacement that would be required based on the results of the proposed inspection. We have no way of determining the number of aircraft that might need this repair:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Replacement	6 work-hours X $85 per hour = $510	$2,850	$3,360

We have received no definitive data that would enable us to provide a cost estimate for the repair specified in this proposed AD.

According to the manufacturer, some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States,

or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a "significant regulatory action" under Executive Order 12866;

2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);

3. Will not affect intrastate aviation in Alaska; and

4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new AD:

Bombardier, Inc.: Docket No. FAA-2013-0700; Directorate Identifier 2013-NM-102-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bombardier, Inc. Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes, certificated in any category, serial numbers 7003 and subsequent.

(d) Subject

Air Transport Association (ATA) of America Code 27, Flight controls.

(e) Reason

This AD was prompted by reports of fractured rudder pedal tubes installed on the pilot-side rudder bar assembly. We are issuing this AD to detect and correct cracking of both pilot-side rudder pedal tubes, which could result in loss of pilot rudder pedal input causing reduced yaw controllability or a runway excursion.

(f) Compliance

You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

(g) Initial Inspections

At the applicable time specified in paragraph (g)(1) through (g)(6) of this AD, do a detailed or eddy current inspection for cracking and damage (i.e., corrosion or cracking) of both pilot-side rudder pedal tubes having part number (P/N) 600-90204-3, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 601R-27-162, including Appendix A, dated April 5, 2013.

(1) For airplanes that have accumulated less than 20,000 total flight cycles as of the effective date of this AD: Do the inspection before the accumulation of 23,000 total flight cycles.

(2) For airplanes that have accumulated 20,000 total flight cycles or more, but less than 25,000 total flight cycles as of the effective date of this AD: Do the inspection within 3,000 flight cycles after the effective date of this AD, but not to exceed 26,300 total flight cycles.

(3) For airplanes that have accumulated 25,000 total flight cycles or more, but less than 30,000 total flight cycles as of the effective date of this AD: Do the inspection within 1,300 flight cycles after the effective date of this AD, but not to exceed 30,800 total flight cycles.

(4) For airplanes that have accumulated 30,000 total flight cycles or more, but less than 33,000 total flight cycles as of the effective date of this AD: Do the inspection within 800 flight cycles after the effective date of this AD, but not to exceed 33,500 total flight cycles.

(5) For airplanes that have accumulated 33,000 total flight cycles or more, but less than 37,000 total flight cycles as of the effective date of this AD: Do the inspection within 500 flight cycles after the effective of this AD, but not to exceed 37,300 total flight cycles.

(6) For airplanes that have accumulated 37,000 total flight cycles or more as of the effective date of this AD: Do the inspection within 300 flight cycles after the effective date of this AD.

(h) Inspection Definition

For the purposes of this AD, a detailed inspection is an intensive examination of a specific item, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirror, magnifying lenses, etc., may be necessary. Surface cleaning and elaborate procedures may be required.

(i) Repetitive Inspections

For any tube on which no cracking and no damage is found during any inspection required by paragraph (g) of this AD: At the applicable time specified in paragraph (i)(1) or (i)(2) of this AD, repeat the detailed or eddy current inspection for cracking of the pilot-side rudder pedal tubes, specified in paragraph (g) of this AD, until the terminating action specified in paragraph (k) of this AD has been accomplished.

(1) If the most recent inspection was a detailed inspection: Repeat the inspection within 600 flight cycles thereafter.

(2) If the most recent inspection was an eddy current inspection: Repeat the inspection within 1,000 flight cycles thereafter.

(j) Corrective Actions

(1) If any cracking is found around the aft tapered holes during any inspection required by paragraph (g) or (i) of this AD, before further flight, replace the affected rudder bar assemblies, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 601R-27-162, including Appendix A, dated April 5, 2013.

(2) If any other damage (i.e., corrosion or cracking), other than that specified in paragraph (j)(1) of this AD, is found during any inspection required by paragraph (g) or (i) of this AD, before further flight, repair using a method approved by either the Manager, New York Aircraft Certification Office (ACO), ANE-170, FAA; or the Transport Canada Civil Aviation (TCCA) (or its delegated agent).

(k) Optional Terminating Action

Replacement of both pilot-side rudder bar assemblies, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 601R-27-162, including Appendix A, dated April 5, 2013, terminates the inspections required by paragraphs (g) and (i) of this AD.

(l) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York Aircraft Certification Office (ACO), ANE-170, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In

accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(m) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2013-12, dated May 14, 2013, for related information, which can be found in the AD docket on the internet at http://www.regulations.gov.

(2) For service information identified in this AD, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email thd.qseries@aero.bombardier.com; Internet http://www.bombardier.com. You may review copies of this service information at the FAA, Transport Airplane Directorate,

1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on August 16, 2013.

Jeffrey E. Duven,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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